UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
BIN C15700
Seattle, WA 98115-0070

Refer to:
OHB2002-0025-FEC

March 25, 2002

Mr. Lawrence C. Evans
Chief, Regulatory Branch
U.S. Army Corps of Engineers, Portland District
P.O. Box 2946
Portland, Oregon 97208-2946

Re: Endangered Species Act Formal Section 7 Consultation and Formal Conference, and Magnuson-Stevens Act Essential Fish Habitat Consultation, for the City of Portland, Office of Transportation, Road Construction Project at SE Foster Road and SE 162nd Avenue (Corps No. 1998-01327)

Dear Mr. Evans:

Enclosed is a biological opinion (Opinion) prepared by the National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) on the effects of a proposed road construction project at SE Foster Road and SE 162nd Avenue in the City of Portland, Multnomah County, Oregon. In this Opinion, NMFS concluded that the proposed action is not likely to jeopardize the continued existence of ESA listed Lower Columbia River (LCR) chinook salmon or LCR steelhead, or destroy or adversely modify designated critical habitats. This Opinion also serves as a conference opinion and concludes that the proposed action is not likely to jeopardize the continued existence of Lower Columbia River/Southwest Washington (LCR/SWW) coho salmon, a candidate for listing under the ESA, or destroy or adversely modify potential critical habitat, should it be proposed.

Pursuant to section 7 of the ESA, NMFS has included reasonable and prudent measures with non-discretionary terms and conditions that NMFS believes are necessary and appropriate to minimize the potential for incidental take associated with this project. If this conference opinion is adopted as a biological opinion following the potential listing of LCR/SWW coho salmon, these measures and their implementing terms and conditions would apply to this species.

This Opinion also serves as consultation on essential fish habitat pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act and implementing regulations at 50 CFR Part 600.

If you have any questions regarding this consultation, please contact Nancy Munn of my staff in the Oregon Habitat Branch at 503.231.6269.

Sincerely,

Russell M Strach for

D. Robert Lohn
Regional Administrator

cc: Brett Kesterson, City of Portland
Mike Reed, City of Portland

Endangered Species Act - Section 7 Consultation
&
Magnuson-Stevens Act
Essential Fish Habitat Consultation

Biological Opinion and Conference Opinion

City of Portland
Road Construction Project at SE Foster Road and SE 162nd Avenue

Agency: Army Corps of Engineers, Portland District

Consultation Conducted By: National Marine Fisheries Service,
Northwest Region

Date Issued: March 25, 2002

Issued by: Russell M Strach for
D. Robert Lohn
Regional Administrator

Refer to: OSB2002-00025-FEC

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1. ENDANGERED SPECIES ACT

1.1 Background

On January 24, 2002, the National Marine Fisheries Service (NMFS) received a request for Endangered Species Act (ESA) section 7 formal consultation from the U.S. Army Corps of Engineers (COE) for a road construction project in the City of Portland, Multnomah County, Oregon. The proposed project will widen and straighten Foster Road to improve safety and site distances, provide turning lanes, and construct stormwater treatment facilities. The project will include the removal of the existing twin box culvert at Kelley Creek and replace it with a pre-cast, open bottom arch culvert. The project applicant is the City of Portland (City). The City designed the project and will be responsible for project construction. The Federal nexus for the ESA consultation is the issuance of the COE permit under section 404 of the Clean Water Act.

Foster Road in the project area intersects Kelley Creek, and the project includes activities within and adjacent to Kelley Creek. Kelley Creek is a tributary of Johnson Creek, which flows into the lower Willamette River. Kelley Creek enters Johnson Creek at approximately river mile 11.4. The COE determined that the proposed action is likely to adversely affect the Lower Columbia River (LCR) chinook salmon (*Oncorhynchus tshawytscha*) and LCR steelhead (*O. mykiss*) which may be present in the project area. The proposed action will occur within designated critical habitat for these species. The project also has the potential to affect Lower Columbia River/Southwest Washington (LCR/SWW) coho salmon (*O. kisutch*), a candidate for listing under the ESA.

This biological opinion and conference opinion (Opinion) is based on the information presented in the COE permit application, the biological assessment (BA) provided by the City, and several site visits and meetings. The consultation process has involved correspondence, conference calls, and other communications to obtain additional information and to clarify the permit application and biological assessment. The effects determination in the BA was made using the methods described in *Making ESA Determinations of Effect for Individual or Grouped Actions at the Watershed Scale* (NMFS 1996).

The objective of this Opinion is to determine whether the proposed road reconstruction project is likely to jeopardize the continued existence of the LCR chinook salmon, LCR steelhead, or LCR/SWW coho salmon, or destroy or adversely modify critical habitats. This consultation is conducted pursuant to section 7(a)(2) of the ESA and its implementing regulations, 50 CFR 402.

1.2 Proposed Action

The proposed action is a road reconstruction project that would realign SE Foster Road, between SE Barbara Welch Road and SE Jenne Road. This section of road has poor curve alignments and insufficient sight distances. The project includes activities to relocate the SE 162nd Avenue intersection further to the west. The purpose of the action is to improve site distances and alleviate existing compound curve problems along Foster Road. This would require widening

Foster Road to provide turn lanes, with a net increase in impervious surface of 0.53 acres. Approximately 0.25 acres of riparian vegetation along Kelley Creek will be removed.

Construction methods will be used to avoid and minimize impacts to wetlands and Kelley Creek. This includes erosion and sediment control measures that will be maintained until ground cover becomes established.

1.2.1 Culvert Replacement and Grade Control Structures

The existing twin box culvert under Foster Road at Kelley Creek will be removed and replaced with a pre-cast open bottom arch culvert. Within the project area, Foster Road intersects Kelley Creek. Kelley Creek is a tributary of Johnson Creek, which flows into the lower Willamette River. The existing box culvert under Foster Road is 60 feet long split into twin concrete box culverts measuring 6 feet high by 8 feet wide each. The new culvert will be a single open bottom arch culvert that is approximately 92 feet long. The new culvert will maintain the existing channel geometry. Wingwalls and a block retaining wall system will be used to minimize the extension of fill beyond the culvert entrance.

Two existing rock grade control structures located downstream of the culvert in Kelley Creek provide grade control for this stream reach and therefore will not be removed. However, these structures also limit upstream passage through Kelley Creek at most flows. The grade control structures will be notched to concentrate flows, thus facilitating upstream and downstream movement of juvenile salmonids. New rock weir structures will be constructed downstream of the existing walls to create plunge pools and decrease the jump heights between the rock grade control structures.

In-water work within Kelley Creek will be required to remove the existing culverts, place the new culvert, and modify the rock weir structures. The in-water work period identified by the Oregon Department of Fish and Wildlife (ODFW) is from July 15 through August 31. This window is designed to avoid impacts to spawning adults and incubating and newly emerged fry. In-water work will be conducted during the summer of 2002. It is likely that a two-week extension at the end of the in-water work period will be required. During construction, streamflow will be diverted through the work area by flexible pipe to minimize potential downstream sediment and turbidity impacts.

1.2.2 Stormwater Treatment

A water quality facility to treat runoff from the new impervious surfaces will be constructed at Foster Road and 159th Avenue. The site currently contains a 0.32 acre mixed scrub-shrub/emergent wetland. The outer edges of the wetland is dominated by Himalayan blackberry. The central portion of the wetland is dominated by Sitka willow and contains lesser amounts of Douglas spirea, Nootka rose, Oregon ash saplings and reed canarygrass. The northern portion contains several rows of planted blueberry. Although the wetland is located within the 100-year floodplain of Johnson Creek, it is physically separated from both Johnson and Kelley Creeks by

SE 159th Ave and residential development. The proposed stormwater detention pond will be constructed within a portion (0.12 acre) of the wetland. About 460 cubic yards of fill will be needed to create a berm surrounding the detention pond and 2.6 cubic yards of excavation will be required to create a bioswale. This will result in 0.12 acre of wetland impact to a scrub-shrub/emergent wetland. The remaining 0.2 acre of wetland on the site will be enhanced. The enhanced wetland area is seasonally saturated from fall through spring, and is dominated by bentgrass and one patch of reed canarygrass. The reed canarygrass area will be excavated and will be seeded with a wetland seed mix. Oregon ash and western red cedar will also be planted in this area. In addition to the wetland enhancement, a 0.12 acre wetland will be created northwest of the wetland enhancement area. A gravel driveway and culvert will be removed to accommodate excavation. Topsoil will be imported and the area seeded with a wetland seed mix and planted with red-osier dogwood, Pacific ninebark, and Nootka rose.

1.2.3 Habitat Restoration Activities

The City will screen the intake to the Lakeside Gardens pond located immediately downstream of the Foster Road culvert on Kelley Creek. The screen will be designed according to NMFS juvenile fish screening criteria. In addition, the City will provide funding to enhance and maintain one acre of a 20-acre riparian woodland restoration project (Johnson Creek Gresham Woods) owned by the City of Gresham and maintained cooperatively with the City of Portland Bureau of Environmental Services Watershed Revegetation Program (WRP). The riparian portion of the site will be enhanced through the planting of native trees and shrubs and maintained by the WRP.

1.3 Biological Information and Critical Habitat

The action area is defined by NMFS regulations (50 CFR 402) as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The action area is the project boundaries including staging and storage areas. The action area also includes areas downstream of Kelley Creek that could be affected by increased turbidity. Essential habitat features for salmonids are: (1) Substrate, (2) water quality, (3) water quantity, (4) water temperature, (5) water velocity, (6) cover/shelter, (7) food (juvenile only), (8) riparian vegetation, (9) space, and (10) safe passage conditions (50 CFR 226). The proposed action has the potential to affect all of these essential habitat features.

Lower Columbia River (LCR) chinook salmon and LCR steelhead have the potential to be present in the action area. LCR chinook salmon were listed as threatened under the ESA on March 24, 1999 (64 FR 14308) and critical habitat was designated on February 16, 2000 (65 FR 7764). Biological information and information on the status of populations within the ESU can be found in Myers et al. (1998) and Healey (1991). LCR steelhead were listed as threatened under the ESA on March 19, 1998 (63 FR 13347) and critical habitat was designated on February 16, 2000 (65 FR 7764). Biological information and information on the status of populations within the ESU can be found in Busby et al. (1995 and 1996). LCR/SWW coho

salmon were designated as a candidate species on November 3, 2000 (65 FR 66221). Weitkamp et al. (1995) provides biological information and available population data.

1.4 Evaluating the Proposed Action

The standards for determining jeopardy are set forth in section 7(a)(2) of the ESA as defined by 50 CFR Part 402 (the consultation regulations). NMFS must determine whether the action is likely to jeopardize the listed species and/or whether the action is likely to destroy or adversely modify critical habitat. This analysis involves the initial steps of defining the biological requirements and current status of the listed species and evaluating the relevance of the environmental baseline to the species' current status.

Subsequently, NMFS evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NMFS must consider the estimated level of mortality attributable to: (1) Collective effects of the proposed or continuing action, (2) the environmental baseline, and (3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed salmon's life stages that occur beyond the action area. If NMFS finds that the action is likely to jeopardize the listed or proposed species, NMFS must identify reasonable and prudent alternatives for the action.

Furthermore, NMFS evaluates whether the action, directly or indirectly, is likely to destroy or adversely modify the listed species' proposed or designated critical habitat. NMFS must determine whether habitat modifications appreciably diminish the value of critical habitat for both survival and recovery of the listed species. NMFS identifies those effects of the action that impair the function of any essential element of critical habitat. NMFS then considers whether such impairment appreciably diminishes the habitat's value for the species' survival and recovery. If NMFS concludes that the action will destroy or adversely modify critical habitat it must identify any reasonable and prudent measures available.

For the proposed action, NMFS' jeopardy analysis considers direct or indirect mortality of fish attributable to the action. NMFS' critical habitat analysis considers the extent to which the proposed action impairs the function of essential elements necessary for migration, spawning, and rearing of the listed species under the existing environmental baseline.

1.4.1 Biological Requirements

The first step in the methods NMFS uses for applying the ESA section 7(a)(2) to listed salmon is to define the species' biological requirements that are most relevant to each consultation. NMFS also considers the current status of the listed species taking into account population size, trends, distribution and genetic diversity. To assess to the current status of the listed species, NMFS starts with the determinations made in its decision to list the species for ESA protection and also considers new data available that is relevant to the determination.

The relevant biological requirements are those necessary for salmonids to survive and recover to naturally-reproducing population levels at which protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance its capacity to adapt to various environmental conditions, and allow it to become self-sustaining in the natural environment.

For this consultation, the biological requirements are improved habitat characteristics that function to support successful spawning, incubation and migration, rearing habitat and over-wintering refugia. Salmon survival in the wild depends upon the proper functioning of certain ecosystem processes, including habitat formation and maintenance. Restoring functional habitats depends largely on allowing natural processes to increase their ecological function, while at the same time removing adverse impacts of current practices. In conducting analyses of habitat-altering actions, NMFS usually defines the biological requirements in terms of a concept called Properly Functioning Condition (PFC) and utilizes a "habitat approach" for its analysis (NMFS 1999). The current status of listed salmonids in the Johnson Creek watershed, including Kelley Creek, based upon their risk of extinction, has not significantly improved since the species were listed. NMFS is not aware of any new data that would indicate otherwise. The City of Portland, in conjunction with other local jurisdictions, has developed a restoration plan for the Johnson Creek watershed. The plan is consistent with other recovery efforts in the lower Columbia River and the proposed action is consistent with the Johnson Creek restoration plan.

1.4.2 Environmental Baseline

Regulations implementing section 7 of the Act (50 CFR 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. The environmental baseline also includes the anticipated impacts of all proposed Federal projects in the action area that have undergone section 7 consultation, and the impacts of State and private actions that are contemporaneous with the consultation in progress. The action area is defined in 50 CFR 402.02 to mean "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."

For the purposes of this consultation, the action area includes all water and adjacent riparian and upland areas with the construction boundaries. The action area may also extend upstream or downstream of the construction boundaries on Kelley Creek, based on the potential of the permitted activities to impair fish passage, riparian succession, the hydrologic cycle, the erosion, transportation and deposition of sediments, and other ecological processes related to the formation and maintenance of salmon habitats. Indirect effects may occur upstream or downstream of the construction boundaries where activities described in this opinion depend on other actions for their justification or usefulness.

Kelley Creek is a boulder-cobble bed stream. Riffles dominate the stream upstream of the culvert. The stream is channelized downstream of the culvert, with stone walls lining the streambank. The riparian area consists of a mature conifer/deciduous canopy and a blackberry/English ivy understory in the action area, upstream of the culvert. Downstream of the

culvert, the riparian area is dominated by mowed back yards on the west, and a series of landscaped ponds on the east. Fish species known to occur upstream of the Foster Road culvert include steelhead (may be rainbow trout), cutthroat trout (*Salmo clarki*), redside shiner (*Richardsonius balteatus*), western brook lamprey (*Lampetra richardoni*) and reticulate sculpin (*Cottus perplexus*). The stream gradient in the project reach is approximately 1.5%. The project site and adjacent area are urbanized, with several houses on the upper slope of the eastern bank of Kelley Creek and a roadway (SE 162nd Ave) on the west side at the top of the slope. The culvert on Kelley Creek at Foster Road is impassable to fish under most flow conditions.

Two separate runs of adult steelhead are thought to occur in the Johnson Creek watershed. One run begins in late November while the other begins in late March. Steelhead populations in Johnson Creek have been augmented with the stocking of approximately 33,000 hatchery steelhead and 35,000 hatchery rainbow trout since 1978. The Oregon Department of Fish and Wildlife (ODFW) Salmon and Trout Enhancement Program (STEP) operated a hatch box program on Mitchell Creek, a tributary to Kelley Creek, until 1998. Operations were discontinued after the listing of LCR steelhead.

Adult steelhead have been documented downstream of the Foster Road culvert. Juvenile steelhead (may be rainbow trout) have been found upstream of the Foster Road culvert on several occasions suggesting some spawning occurs upstream of the culvert. No adult fish have been observed upstream of the culvert. The configuration of the existing culvert at Foster Road is thought to be a barrier to upstream fish movement, except under a narrow range of flow conditions. While small pockets of suitable habitat are available to support salmonids upstream of the culvert, the rearing potential in Kelley Creek is limited by low flow conditions and high temperatures typical during the summer months.

A total of 41 adult chinook salmon have been found in the lower portion of Johnson Creek since 1967; none have been observed in Kelley Creek. It is not known whether these fish are strays from the Willamette River, progeny from individuals originating in hatch boxes in Crystal Springs Creek and/or progeny from natural spawning. Fall chinook salmon populations in Johnson Creek have been augmented through stocking of 99,000 hatchery origin fall chinook salmon since 1978.

A small population of naturally-reproducing coho salmon resides in Johnson Creek (Portland Multnomah Progress Board, 2000). Coho salmon are occasionally found in Johnson Creek above its confluence with Kelley Creek. No coho salmon have been documented in Kelley Creek. Natural production of coho in the Johnson Creek watershed has been supplemented by hatch box production in Crystal Springs Creek. Since 1978, over 330,000 hatchery fish (fry/smolts) have been released in Johnson Creek. These releases ceased in 1999.

In a 1993 survey, water quality and habitat conditions in lower Kelley Creek were rated good based on benthic macroinvertebrate sampling, suggesting that food supply is not a limiting factor for salmonid production. However, in 1998, gravel, cobble and riffle areas showed some

embeddedness, with sedimentation greater in areas of low velocity, low gradient, and along the edges of the channel.

Johnson Creek is on the Oregon Department of Environmental Quality's 303(d) list of water quality limited streams for summer water temperature. The U.S. Geological Survey temperature gage on Kelley Creek indicates that temperatures exceed the temperature standard of 64°F on a regular basis during the summer months.

The action area is within a rapidly-developing area of outer southeast Portland. Lakeside Gardens, a commercial wedding and party establishment, operates a diversion structure at the downstream end of the culvert. Both banks downstream of the culvert have been channelized by rock structures. Immediately upstream of the culvert, riparian habitat is degraded by fill from past road construction activities and trash dumping. Invasive species such as Himalayan blackberry and English ivy dominate the vegetation on both sides of the creek within the action area. Riparian quality improves upstream of the roadfill area, with gravel/cobble substrates and undercut banks. The riparian forest is narrow with a mixture of coniferous and deciduous trees. The Kelley Creek corridor is forested upstream of the culvert for approximately 0.5 miles. Agricultural and residential land uses are predominant upstream. Further upstream, Kelley Creek flows through an urbanized environment with altered or degraded riparian habitat. It is influenced by nursery and grazing operations throughout this reach. The headwater portion of Kelley Creek, adjacent to Rodlund Road, contains a high quality riparian canopy with pockets of viable anadromous fish habitat.

NMFS concludes that not all of the biological requirements of the species within the action area are being met under current conditions, based on the best available information on the status of the affected species; information regarding population status, trends, and genetics; and the environmental baseline conditions within the action area. Significant improvement in habitat conditions over those currently available under the environmental baseline is needed to meet the biological requirements for survival and recovery of these species. Any further degradation of these conditions would have a significant impact due to the amount of risk they presently face under the environmental baseline.

1.5 Analysis of Effects

1.5.1 Effects of Proposed Action

The project will provide substantial beneficial effects to fish passage in Kelley Creek. The new culvert will have a natural channel bottom and is designed to pass all life stages at most flows. The improvements to the rock weirs downstream of the culvert will also facilitate fish passage at

most flows. Although the culvert extension will result in the loss of 269 ft^2 of streambed habitat, the structural changes will allow steelhead to gain access to approximately 2.75 miles of habitat in Kelley Creek and 1.4 miles in Mitchell Creek. In addition, the screening at the Lakeside Gardens diversion will prevent the entrainment of juvenile salmon into the landscaped ponds.

Approximately 0.53 acres of new impervious pavement will result in altered hydrology (timing and duration of peak and base flows) and reduced water quality (Paul and Meyer 2001). The proposed stormwater detention facility is designed to treat 260% of the new impervious surface. It is designed to accommodate stormwater from future sidewalk and bikepath additions along the Foster Road corridor, and will treat other large impervious areas in the vicinity that currently flow untreated into Kelley Creek. Stormwater from the roadway in the project area will be directed to the stormwater treatment facility to be constructed at SE 159th Drive and Foster Road. The stormwater will be returned to Kelley Creek near the SE 159th Drive Bridge. The stormwater facility is located in an upland area outside of the 100-year floodplain. Therefore, proposed project facilities will minimize the potential for affects to stream hydrology and water quality.

Upland and riparian vegetation will be impacted by the project. Approximately 0.25 acres of riparian vegetation will be lost. The vegetation includes the removal of five deciduous and coniferous trees greater than 6 inch diameter at breast height. To compensate for impacts to riparian vegetation, the City will enhance and maintain one acre of riparian habitat within a 20-acre riparian woodland restoration site. Although the site is not within the Kelley Creek sub-watershed, it is within the Johnson Creek watershed and will contribute to an improved baseline in the watershed.

In-water work will be required to remove the existing culverts, place the new culvert, and construct the check dams downstream of the culvert. Fish passage will be temporarily disrupted during the in-water work. Adults will not likely be present in the action area during the in-water work period because of high summer water temperatures. Juveniles may be present, and will be excluded from the active work area. Flow will be diverted and the area will be de-watered to minimize the potential for direct impacts to salmon and water quality. During the work area isolation and de-watering, a qualified fisheries biologist will be on-site to salvage any salmonids present. The City anticipates that flow through the culvert and grade control areas will be confined to bypass pipes to prevent entrainment of sediment during installation of the arch culvert footings and the step pool walls. Any pump used to de-water these areas will be screened, operated and maintained according to NMFS' fish screen criteria. All water pumped will be discharged into an upland area to provide over-ground flow before returning to the creek. The de-watering and fish handling activities have the potential to directly take listed fish, and disrupt normal behavior. Measures will be taken to isolate the work area and to choose appropriate equipment to minimize the potential for take. These measures are described in the biological assessment.

The applicant has requested a two-week extension beyond the in-water work window of July 15 to August 31. Water temperatures will likely remain high during this period, and increased

flows are unlikely. Adult fish will not be moving into Kelley Creek during September and juvenile fish will likely remain in the deeper, cooler pools in the system. Therefore, effects on listed fish during the two-week extension will remain similar to the effects during the in-water work window.

The biological assessment lists conservation measures designed to minimize the potential for erosion and other riparian disturbances. However, operation of equipment in the channel or in riparian areas increases the risk of a fuel spill which could kill or injure aquatic organisms. Short-term increases in turbidity and sedimentation are likely. Larger juvenile and adult salmon appear to be little affected by ephemerally-high concentrations of suspended sediments that occur during most storms and episodes of snow melt. As described below, other research demonstrates that feeding and territorial behavior can be disrupted by short-term exposure to turbid water. At moderate levels, turbidity has the potential to adversely affect primary and secondary productivity, and at high levels, has the potential to injure and kill adult and juvenile fish (Spence et al. 1996). Localized increases of turbidity will likely displace fish in the project area and disrupt normal behavior.

Reported influences of suspended sediment and turbidity influences on fish range from beneficial to detrimental. Elevated total suspended solids (TSS) conditions have been reported to enhance cover conditions, reduce piscivorous fish/bird predation rates (Gregory and Levings 1988), and improve survival. Elevated TSS conditions have also been reported to cause physiological stress, reduce growth, and reduce survival (Bell 1991) and reduce cover for juvenile salmonids (Bjornn and Reiser 1991). Of key importance in considering the detrimental effects of TSS on fish are the frequency and the duration of the exposure (not just the TSS concentration).

Behavioral avoidance of turbid waters may be one of the most important effects of suspended sediments (Birtwell et al. 1984, Scannell 1988). Salmonids have been observed to move laterally and downstream to avoid turbid plumes (McLeay et al. 1984, 1987, Sigler et al. 1984, Lloyd 1987, Scannell 1988, Servizi and Martens 1991). Juvenile salmonids tend to avoid streams that are chronically turbid, such as glacial streams or those disturbed by human activities, except when the fish need to traverse these streams along migration routes (Lloyd et al. 1987).

Exposure duration is a critical determinant of the occurrence and magnitude of physical or behavioral effects (Newcombe and MacDonald 1991). Salmonids have evolved in systems that periodically experience short-term pulses (days to weeks) of high suspended sediment loads, often associated with flood events, and are adapted to such high pulse exposures. When turbidity is localized and brief, there is a low probability of direct mortality because the fish should be aware and agile enough to avoid any equipment used to repair the slope. However, research indicates that chronic exposure can cause physiological stress responses that can increase maintenance energy and reduce feeding and growth (Redding et al. 1987, Lloyd 1987, Servizi and Martens 1991). Newly emerged salmonid fry may be vulnerable to even moderate amounts of turbidity (Bjornn and Reiser 1991). Other behavioral effects on fish, such as gill

flaring and feeding changes, have been observed in response to pulses of suspended sediment (Berg and Northcote 1985). Increases in turbidity and suspended sediment from the proposed action are expected to be temporary and localized.

Instream use of heavy equipment may compact and disturb stream bed gravels. Compaction and disturbance of stream bed gravels may increase the difficulty of redd excavation and the ability of the gravels to be aerated, reducing egg to fry survival. Cederholm et al. (1997) recommend that heavy equipment work should be performed from the bank, that work within bedrock or boulder/cobble bedded channels should be viewed as a last resort, and that the least damaging equipment such as spider harvesters/log loaders be utilized. This type of language is included in the conservation measures to minimize the potential for impacts to stream gravels.

Short-term alterations to the adjacent riparian area to facilitate access to the slope and repair site may result in increases in turbidity and loss of vegetation. The loss of vegetation may result in some small amount of increased solar radiation and subsequent small increase in stream temperature.

Over the short term, the proposed action will likely result in increased sediment loading and transport in Kelley Creek and decreased water quality. Over the long term, the proposed action will result in improved fish passage and water quality.

1.5.2 Effects on Critical Habitat

NMFS designates critical habitat based on physical and biological features that are essential to the listed species. Essential features for designated critical habitat include substrate, water quality, water quantity, water temperature, food, riparian vegetation, access, water velocity, space and safe passage. Critical habitat for listed anadromous ESUs consists of all waterways below naturally-impassable barriers including the project area. The adjacent riparian zone is also included in the designation. This zone is defined as the area that provides the following functions: Shade, sediment, nutrient or chemical regulation, streambank stability, and input of large woody debris or organic matter. Effects to critical habitat from these activities are included in the effects description in Section 1.5.1 above.

1.5.3 Cumulative Effects

Cumulative effects are defined in 50 CFR 402.02 as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." Other activities within the watershed have the potential to impact fish and habitat within the action area. Future Federal actions, including the ongoing operation of hydropower systems, hatcheries, fisheries, and land management activities are being (or have been) reviewed through separate section 7 consultation processes.

Non-federal activities within the action area are expected to increase with a projected 34 percent increase in human population over the next 25 years in Oregon. The action area is within a

rapidly urbanizing section of the Portland metropolitan area. Thus, NMFS assumes that future private and State actions will continue within the action area, but at increasingly higher levels as population density climbs.

1.6 Conclusion

NMFS has determined, based on the information, analysis, and assumptions described in this Opinion, that the COE's proposed action, including the proposed conservation measures, are not likely to jeopardize the continued existence of LCR chinook salmon and LCR steelhead. In arriving at this determination, NMFS considered the status of the listed salmon and steelhead, environmental baseline conditions, the direct and indirect effects of approving the action, and the cumulative effects of actions anticipated in the action area. NMFS evaluated the proposed action and found that it would cause short-term degradation of some environmental baseline indicators for listed salmon and steelhead. However, the proposed action is not expected to result in further degradation of aquatic habitats over the long term because of improvements resulting from the proposed stormwater facility, proposed improvements to fish passage, and proposed riparian plantings on-site and along Johnson Creek. Thus, the effect of the proposed action would not reduce prespawning survival, egg-to-smolt survival, juvenile rearing, or upstream/downstream migration survival rates to a level that would appreciably diminish the likelihood of survival and recovery of candidate or listed fishes, nor is it likely to result in the destruction or adverse modification of critical habitats.

1.7 Conservation Recommendations

Section 7 (a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Conservation recommendations are discretionary measures suggested to minimize or avoid adverse effects of a proposed action on listed species, to minimize or avoid adverse modification of critical habitat, or to develop additional information. NMFS does not request any conservation recommendations for this action.

1.8 Reinitiation of Consultation

As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and if: (1) The amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this Opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this Opinion, or (4) a new species is listed or critical habitat is designated that may be affected by the action. In instances where the amount or extent of authorized incidental take is exceeded, any operations causing such take must cease pending reinitiation of consultation.

2. INCIDENTAL TAKE STATEMENT

Sections 4 (d) and 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking, provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

2.1 Amount or Extent of the Take

NMFS anticipates that the action covered by this Opinion is reasonably certain to result in incidental take of LCR steelhead because of detrimental effects from increased sediment levels (non-lethal) and the possibility of juvenile presence in the vicinity of the project site during in-water work. There is also the potential for harm because of significant habitat modification. The effects of fish handling during work area isolation could result in minor incidental lethal take of listed fish. NMFS anticipates that up to 100 juvenile steelhead could be in the project vicinity and handled during the work area isolation activities. Approximately 5% of these, or 5 fish, typically die during, or following, electroshocking and handling. Consequently, NMFS anticipates non-lethal incidental take of up to 95 fish associated with fish handling, and the lethal incidental take is estimated to be five fish or less. Take resulting from the effects of other project actions covered by this Opinion is largely unquantifiable in the short term and not expected to be measurable as long-term effects on population levels. The extent of take is limited to the project action area.

NMFS does not anticipate any incidental take of LCR chinook salmon, because no individuals from this ESU are expected to occur in the action area. LCR chinook salmon likely only use the lower portions of Johnson Creek for temporary refuge as they migrate through the lower Willamette River.

2.2 Reasonable and Prudent Measures

The measures described below are non-discretionary. They must be implemented so that they become binding conditions in order for the exemption in section 7(a)(2) to apply. The COE has

the continuing duty to regulate the activities covered in this incidental take statement. If the COE fails to require the City to adhere to the terms and conditions of the incidental take statement through enforceable terms added to the document authorizing this action, or fails to retain the oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

The Foster Road Improvement Project includes a set of "conservation measures" designed to minimize take of listed species. These are described on pages 12 and 13 of the BA, dated August 22, 2001. Specific measures for in-water and bank work, clearing and grubbing, bridge removal, erosion control, hazardous materials, and site-specific conservation and habitat remediation measures are included.

NMFS believes that the following reasonable and prudent measures, along with conservation measures described in the BA, are necessary and appropriate to minimize the likelihood of take of listed fish resulting from implementation of this opinion. These reasonable and prudent measures would also minimize adverse effects to designated critical habitat.

The COE shall:

1. Minimize the likelihood of incidental take by timing the completion of all in-water work as necessary to avoid harming vulnerable salmon life stages, including spawning, migration, and rearing.

2. Minimize the amount and extent of incidental take from construction activities in or near the water by implementing effective erosion and pollution control measures, minimizing the movement of soils and sediment both into and within the stream, and stabilizing bare soil in the short and long term.

3. Minimize the likelihood of incidental take from in-water work by ensuring that the in-water work areas are isolated from flowing water.

4. Carry out a comprehensive monitoring and reporting program to ensure that conservation measures prescribed in this Opinion are effective in minimizing the likelihood of take from permitted activities.

2.3 Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the COE must comply with the following terms and conditions, which implement the reasonable and prudent measures described above for each category of activity. These terms and conditions are non-discretionary.

1. To implement Reasonable and Prudent Measure #1 (in-water timing), the COE shall ensure that:

a. All work within the ordinary high water mark will be completed within the ODFW approved in-water work period (July 15 to August 31)[1], plus an extension of two weeks at the end of the 2002 work window.

b. Extensions to the in-water work period beyond the two-week extension discussed above, including those for work outside the wetted perimeter of the stream but below the ordinary high water (19.5 meters) mark must be approved by biologists from NMFS.

2. To implement Reasonable and Prudent Measure #2 (pollution and erosion control) the COE shall:

   a. Project design. Minimize alteration or disturbance of the stream banks and existing riparian vegetation.

   b. Pollution and erosion control plan. Develop a Pollution and Erosion Control Plan (PECP) for the project to prevent point-source pollution related to construction operations containing all of the pertinent elements listed below and meeting requirements of all applicable laws and regulations.

      i. Describe methods that will be used to prevent erosion and sedimentation associated with access roads, construction sites, equipment and material storage sites, fueling operations and staging areas.

      ii. Identify hazardous products or materials that will be used, including procedures for inventory, storage, handling, and monitoring.

      iii. Develop a spill containment and control plan with these components: Notification procedures, specific clean up and disposal instructions for different products, quick response containment and clean up measures, proposed methods for disposal of spilled materials, and employee training for spill containment.

      iv. Describe measures that will be taken to prevent construction debris from falling into any aquatic habitat. Any material that falls into a stream during construction operations will be removed in a way that has a minimum impact on the streambed and water quality.

   c. Pre-construction activities. Before significant alteration of the action area, complete the following actions:

      i. Flag boundaries of the clearing limits associated with site access and construction to prevent ground disturbance of critical riparian vegetation, wetlands and other sensitive sites beyond the flagged boundary.

      ii. Stockpile a supply of erosion control materials (e.g., silt fence and straw bales) on-site to respond to sediment emergencies. Use sterile straw or hay bales, when available, to prevent introduction of weeds.

      iii. Install all temporary erosion controls (e.g., straw bales, silt fences) downslope of project activities within the riparian area. Keep them in-

[1]Oregon Department of Fish and Wildlife, *Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources*, 12pp (Jne 2000)(identifying work periods with the least impact on fish()http://www.dfw.state.or.us/ODFWhtml/InfoCntrHbt/0600_inwtrguide.pdf).

place and maintained throughout the contract period, and until permanent erosion control measures are effective.

d. Earthwork. Complete earthwork, including drilling, blasting, excavation, dredging, filling and compacting, in the following manner:
   i. Obtain boulders, rock, woody materials and other natural construction materials used for the project from outside the riparian area.
   ii. Place material removed during excavation in locations where it cannot enter streams or other water bodies.
   iii. Stabilize all exposed or disturbed areas to prevent erosion.
      (1) Stabilize areas of bare soil within 45 meters of waterways, wetlands or other sensitive areas quickly as reasonable after exposure, but within seven days. Use native seeding,[2] mulching, and placement of erosion control blankets and mats, if applicable.
      (2) Stabilize all other areas as quickly as reasonable, but within 14 days of exposure.
      (3) Do not consider seeding outside the growing season as adequate for permanent stabilization.

e. Heavy Equipment. Fuel, maintain and store heavy equipment as follows.
   i. Vehicle staging, maintenance, refueling, and fuel storage may occur within 45 meters horizontal distance from the stream in the field on the southeast corner of the bridge
   ii. The staging area will provide adequate containment to prevent pollutants from entering the waterway.
   iii. Inspect all vehicles operated or staged within 45 meters of any stream or water body daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected before the vehicle resumes operation.
   iv. When not in use, store vehicles in the vehicle staging area.

f. Site restoration. Complete site restoration and clean up, including protection of bare earth by seeding, planting, mulching and fertilizing, in the following manner:
   i. Plant disturbed areas with native vegetation specific to the project vicinity or the region of the state where the project is found, using a diverse assemblage of woody and herbaceous species.
   ii. Do not apply herbicide as part of this permitted action.
   iii. Do not use surface application of fertilizer within 15 meters of any stream channel.
   iv. Achieve an 80 percent survival success of planting after three years.

3. To implement Reasonable and Prudent Measure #3 (isolation of in-water work area) the COE shall ensure:

[2] By Executive Order 13112 (February 3, 1999), Federal agencies are not authorized to permit, fund or carry out actions that are likely to cause, or promote, the introduction or spread of invasive species. Therefore, only native vegetation that is indigenous to the project vicinity, or the region of the state where the project is located, shall be used.

a. The work area will be isolated from the wetted channel with a coffer dam (made out of sandbags, sheet pilings, inflatable bags, or etc.), or similar structure, to minimize the potential for sediment entrainment.

b. If the fish salvaging aspect of this project requires use of seine equipment to capture fish, complete the salvage operation as follows.
   i. Before and intermittently during pumping, attempt to seine and release fish from the work isolation area as is prudent to minimize risk of injury.
   ii. Have an experienced fishery biologist carry out or supervise all seining efforts and ensure that staff working with the seining operation must have the necessary knowledge, skills, and abilities to ensure the safe handling of all salmon.
   iii. Handle salmon with extreme care and keep them in water to the maximum extent possible during seining and transfer procedures. Transfer salmon using a sanctuary net that holds water during transfer, whenever appropriate, to prevent the added stress of an out-of-water transfer.
   iv. Release seined fish as near as possible to capture sites in upstream pool habitat.
   v. Ensure that any other Federal, State, and local permits and authorizations necessary for the conduct of the seining activities are obtained before project seining activity.
   vi. The COE must allow NMFS or its designated representative to accompany field personnel during the seining activity, and allow such representative to inspect the seining records and facilities.
   vii. Describe any seine and release effort in a post project report, and include: The name and address of the supervisory fish biologist, methods used to isolate the work area and minimize disturbances to salmon, stream conditions before and following placement and removal of barriers, the means of fish removal, the number of fish removed by species, the condition of all fish released; and any incidence of observed injury or mortality.

c. If the fish salvaging aspect of this project requires the use of electrofishing equipment to capture fish, observe NMFS (1998) guidelines as follows:
   i. Do not electrofish near adult salmon in spawning condition or near redds containing eggs.
   ii. Keep equipment in good working condition. Complete manufacturers' preseason checks, follow all provisions, and record major maintenance work in a log.
   iii. Train the crew by a crew leader with at least 100 hours of electrofishing experience in the field using similar equipment. Document the crew leader's experience in a logbook. Complete training in waters that do not contain salmon before an inexperienced crew begins any electrofishing.
   iv. Measure conductivity and set voltage as follows:

Conductivity (umhos/cm)	Voltage

Less than 100	900 to 1100
100 to 300	500 to 800
Greater than 300	150 to 400

v. Use direct current (DC) at all times.

vi. Begin each session with pulse width and rate set to the minimum needed to capture fish. These settings should be gradually increased only to the point where fish are immobilized and captured. Start with pulse width of 500us and do not exceed 5 milliseconds. Pulse rate should start at 30Hz and work carefully upwards. In general, pulse rate should not exceed 40 Hz, to avoid unnecessary injury to the fish.

vii. The zone of potential fish injury is 0.5 meters from the anode. Care should be taken in shallow waters, undercut banks, or where fish can be concentrated because in such areas the fish are more likely to come into close contact with the anode.

viii. Work the monitoring area systematically, moving the anode continuously in a herringbone pattern through the water. Do not electrofish one area for an extended period.

ix. Have crew members carefully observe the condition of the sampled fish. Dark bands on the body and longer recovery times are signs of injury or handling stress. When such signs are noted, the settings for the electrofishing unit may need adjusting. End sampling if injuries occur or abnormally long recovery times persist.

x. Whenever possible, place a block net below the area being sampled to capture stunned fish that may drift downstream.

xi. Record the electrofishing settings in a logbook along with conductivity, temperature, and other variables affecting efficiency. These notes, with observations on fish condition, will improve technique and form the basis for training new operators.

4. To implement Reasonable and Prudent Measure #4 (monitoring and reporting), the COE shall:

a. Submit a report to NMFS within 120 days of completing the project. Describe the applicant's success meeting conservation recommendations above. Include the following information.

i. <u>Project identification</u>.

(1) Project name.

(2) starting and ending dates of work completed for this project.

(3) the COE contact person.

(4) location of the compensatory mitigation site.

ii. <u>Isolation of in-water work area</u>. All projects involving isolation of in-water work areas must include a report of any seine and release activity including:

(1) The name and address of the supervisory fish biologist.

(2) Methods used to isolate the work area and minimize disturbances to ESA-listed species.
(3) Stream conditions prior to and following placement and removal of barriers.
(4) The means of fish removal.
(5) The number of fish removed by species.
(6) The location and condition of all fish released.
(7) Any incidence of observed injury or mortality.

iii. Pollution and erosion control. A summary of all pollution and erosion control inspection reports, including descriptions of any failures experienced with erosion control measures, efforts made to correct them and a description of any accidental spills of hazardous materials.

iv. Site restoration. Documentation of the following conditions:
(1) Finished grade slopes and elevations.
(2) Log and rock structure elevations, orientation, and anchoring, if any.
(3) Planting composition and density.
(4) A plan to inspect and, if necessary, replace failed plantings and structures for a period of three years, including the compensatory mitigation site.

v. A narrative assessment of the effects of the project and any compensatory mitigation on natural stream function.

vi. Photographic documentation of environmental conditions at the project site and any compensatory mitigation site before, during and after project completion.
(1) Photographs will include general project location views and close-ups showing details of the project area and project, including pre- and post-construction.
(2) Each photograph will be labeled with the date, time, photo point, project name, the name of the photographer, and a comment describing the photograph's subject.
(3) Relevant habitat conditions include characteristics of channels, streambanks, riparian vegetation, flows, water quality, and other visually discernable environmental conditions at the project area, and upstream and downstream of the project.

b. Submit monitoring reports to:

National Marine Fisheries Service
Oregon Habitat Branch, Habitat Conservation Division
Attn: OHB2002-0025
525 NE Oregon Street, Suite 500
Portland, Oregon 97232-2778

3. MAGNUSON-STEVENS ACT

3.1 Background

The objective of the essential fish habitat (EFH) consultation is to determine whether the proposed action may adversely affect designated EFH for relevant species, and to recommend conservation measures to avoid, minimize, or otherwise offset potential adverse effects to EFH resulting from the proposed action.

3.2 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires the inclusion of EFH descriptions in Federal fishery management plans. In addition, the MSA requires Federal agencies to consult with NMFS on activities that may adversely affect EFH.

EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (MSA §3). The Pacific Fisheries Management Council (Council) has designated EFH for Federally-managed groundfish (PFMC 1998a), coastal pelagic (PFMC 1998b), and Pacific salmon (PFMC 1999) fisheries.

The MSA requires consultation for all actions that may adversely affect EFH, and does not distinguish between actions within EFH and actions outside EFH. Any reasonable attempt to encourage the conservation of EFH must take into account actions that occur outside EFH, such as upstream and upslope activities, that may have an adverse effect on EFH. Therefore, EFH consultation with NMFS is required by Federal agencies undertaking, permitting or funding activities that may adversely affect EFH, regardless of its location.

The consultation requirements of section 305(b) of the MSA (16 U.S.C. 1855(b)) provide that:

- Federal agencies must consult on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH.
- NMFS shall provide conservation recommendations for any Federal or State activity that may adversely affect EFH.
- Federal agencies shall, within 30 days after receiving an EFH conservation recommendation from NMFS, provide a detailed response in writing to NFMS regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, minimizing, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with conservation recommendations of NMFS, the Federal agency shall explain its reasons for not following the recommendations no less than 10-days prior to granting final authorization for the subject action.

3.3 Identification of Essential Fish Habitat

The Pacific Fishery Management Council (PFMC) has designated EFH for federally-managed fisheries within the waters of Washington, Oregon and California. The designated EFH for groundfish and coastal pelagic species encompasses all waters from the mean high water line, and upriver extent of saltwater intrusion in river mouths, along the coasts of Washington, Oregon and California, seaward to the boundary of the U.S. exclusive economic zone (200 miles) (PFMC 1998a, 1998b). Freshwater EFH for Pacific salmon includes all streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PDMC), and longstanding, naturally-impassable barriers (i.e., natural waterfalls
in existence for several hundred years) (PFMC 1999). In estuarine and marine areas, designated salmon EFH extends from the nearshore and tidal submerged environments within PFMC is one of eight Regional Fishery Management Councils established under the Magnuson-Stevens Act. The PFMC develops and carries out fisheries management plans for Pacific coast groundfish, coastal pelagic species and salmon off the coasts of Washington, Oregon and California, and recommends Pacific halibut harvest regulations to the International Pacific Halibut Commission.

The Pacific Fisheries Management Council (PFMC) has designated EFH for three species of Pacific salmon: chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*O. kisutch*), and Puget Sound pink salmon (*O. gorbuscha*)(PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC), and longstanding, naturally-impassable barriers (i.e., natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based on this information.

3.4 Proposed Action

The proposed actions are detailed above in Section 1.2, Proposed Action. The action area is defined as the channel and adjacent riparian area of Kelley Creek from the project site boundaries, downstream to the confluence with Johnson Creek. This area has been designated as EFH for various life stages of coho salmon and chinook salmon.

3.5 Effects of the Proposed Action

NMFS concludes that the effects of this action on designated EFH are likely to be within the range of effects considered in the ESA portion of this consultation.

3.6 Conclusion

NMFS believes that the proposed action may adversely affect the EFH for coho salmon and chinook salmon.

3.7 EFH Conservation Recommendations

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation recommendations for any Federal or State agency action that would adversely affect EFH. The conservation measures proposed for the project by the COE and the applicant and all of the reasonable and prudent measures and the terms and conditions contained in Sections 2.2 and 2.3 are applicable to salmon EFH. Therefore, NMFS incorporates each of those measures here as EFH conservation recommendations.

3.8 Statutory Response Requirement

Please note that the Magnuson-Stevens Act (section 305(b)) and 50 CFR 600.920(j) requires the Federal agency to provide a written response to NMFS after receiving EFH conservation recommendations within 30 days of its receipt of this letter. This response must include a description of measures proposed by the agency to avoid, minimize, mitigate or offset the adverse impacts of the activity on EFH. If the response is inconsistent with a conservation recommendation from NMFS, the agency must explain its reasons for not following the recommendation.

3.9 Consultation Renewal

The COE must reinitiate EFH consultation with NMFS if either the action is substantially revised or new information becomes available that affects the basis for NMFS' EFH conservation recommendations (50 CFR 600.920).

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